Name:

at1110paper_practice_test (v14)

1. Expand the following expression into standard form.

$$(2x + 9)(4x + 5)$$

$8x^2 + 10x + 36x + 45$

$8x^2 + 46x + 45$

2. Solve the equation.

$$(9x - 5)(3x - 2) = 0$$

$x = \frac{5}{9}$ $x = \frac{2}{3}$

3. Expand the following expression into standard form.

$$(7x + 5)(7x - 5)$$

$49x^2 - 35x + 35x - 25$

$49x^2 - 25$

4. Expand the following expression into standard form.

$$(9x - 8)^2$$

$81x^2 - 72x - 72x + 64$

$81x^2 - 144x + 64$

5. Factor the expression.

$$x^2 + 4x - 45$$

$$(x + 9)(x - 5)$$

6. Factor the expression.

$$25x^2 - 16$$

$$(5x - 4)(5x + 4)$$

7. Solve the equation with factoring by grouping.

$$20x^2 + 15x + 8x + 6 \;=\; 0$$

$$(5x + 2)(4x + 3) = 0$$

$$x = \frac{-2}{5} \qquad x = \frac{-3}{4}$$

8. Solve the equation.

$$6x^2 - 9x - 25 \;=\; 3x^2 + 4x + 5$$

$$3x^2 - 13x - 30 = 0$$

$$(3x + 5)(x - 6) = 0$$

$$x = \frac{-5}{3} \qquad x = 6$$